

All Other Industrial Machinery Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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U.S. Department of Commerce
Economics and Statistics Administration
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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
333298, All other industrial machinery manufacturing	2002..	1 418	1 465	42 526	1 902 190	23 096	44 164	821 603	4 039 452	3 464 008	7 613 805	271 621
	2001..	N	N	54 195	2 216 485	30 686	59 983	980 908	4 499 670	4 114 903	8 802 827	234 510
	2000..	N	N	54 185	2 208 920	31 526	61 130	1 002 252	4 732 902	4 514 583	9 231 740	278 429
	1999..	N	N	53 899	2 134 222	30 925	61 038	969 494	4 575 881	4 293 297	8 789 408	291 294
	1998..	N	N	54 259	2 071 112	30 590	60 992	968 542	4 598 307	3 971 946	8 691 096	215 601
	1997..	1 634	1 680	53 491	2 030 522	31 305	62 681	949 713	4 553 128	4 239 173	8 831 447	313 183

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
333298, All other industrial machinery manufacturing												
United States	2	1 465	479	42 526	1 902 190	23 096	44 164	821 603	4 039 452	3 464 008	7 613 805	271 621
Alabama	8	13	5	613	23 778	343	672	12 139	43 931	30 553	74 906	3 035
Arizona	2	12	5	493	16 089	356	772	11 077	25 946	23 628	49 850	1 460
Arkansas	3	10	3	169	6 597	103	192	3 175	7 661	7 704	15 327	298
California ⁴	3	156	48	4 217	194 909	2 319	4 349	81 473	384 136	278 154	682 937	36 851
Colorado	1	21	5	338	16 077	204	396	7 968	31 173	26 646	61 746	2 399
Connecticut	1	33	9	852	39 235	440	877	15 735	81 157	87 007	168 838	2 468
Florida	2	33	13	547	22 526	263	478	7 750	39 651	32 619	70 188	1 308
Georgia	4	33	14	852	35 198	457	830	14 193	65 471	64 939	130 244	8 737
Illinois	1	92	30	3 114	139 568	1 737	3 357	64 982	427 613	282 884	714 111	18 917
Indiana	2	49	13	1 053	46 214	671	1 258	27 967	83 515	83 060	167 849	3 332
Iowa	1	16	8	608	26 311	340	696	11 572	54 839	31 415	87 131	8 367
Kentucky	1	10	4	185	7 517	113	222	3 693	12 218	8 503	20 809	414
Louisiana	—	10	2	235	12 519	133	248	5 888	27 347	17 093	42 661	435
Maryland	6	11	5	331	15 320	168	338	5 884	39 095	21 263	59 522	1 773
Massachusetts	4	37	12	2 059	98 881	854	1 354	30 971	177 796	126 152	311 559	13 148
Michigan	1	124	42	3 734	195 414	1 946	3 602	82 789	341 304	491 402	882 015	23 360
Minnesota	2	41	11	795	37 653	438	835	16 714	62 019	57 746	119 455	1 891
Missouri	2	23	10	761	31 626	395	753	14 187	62 872	48 806	115 771	2 462
Nebraska	2	6	2	283	6 588	45	102	1 257	13 516	4 782	18 240	3 526
New Jersey	1	64	25	1 400	65 990	834	1 654	35 653	129 762	96 063	231 749	5 147
New York	2	76	29	3 382	168 020	1 598	3 092	62 934	364 016	312 170	687 221	23 576
North Carolina	3	47	17	1 180	52 616	725	1 501	24 555	114 410	94 453	210 261	3 518
Ohio	3	122	39	3 024	124 687	1 692	3 375	54 558	236 377	269 153	509 924	23 055
Oklahoma	—	23	9	1 051	45 078	492	988	15 951	126 333	99 500	227 358	18 719
Oregon	1	19	8	516	22 124	228	437	7 392	91 721	34 093	124 064	4 241
Pennsylvania	3	84	27	2 061	83 565	1 186	2 332	39 759	160 458	114 435	276 263	9 281
Rhode Island	2	14	2	141	5 641	87	178	2 867	10 043	5 154	15 178	391
South Carolina	2	16	4	514	20 705	305	625	8 858	43 408	34 033	76 287	3 121
Tennessee	5	23	8	640	26 036	401	761	13 385	55 509	49 393	102 753	2 739
Texas	4	84	27	3 034	132 165	1 736	3 249	56 354	345 127	313 360	656 520	17 647
Utah	1	7	3	173	6 461	108	175	2 787	12 909	11 709	24 482	309
Virginia	2	20	11	785	28 718	527	986	15 071	77 366	57 805	133 249	3 718
Wisconsin	4	50	11	1 023	43 960	552	1 068	17 501	80 991	66 082	146 096	4 947

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Data for this industry include separate corporate, subsidiary, and regional managing offices and enterprise support operations.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
333298, All other industrial machinery manufacturing	
Companies ¹	number.. 1 418
All establishments ²	number.. 1 465
Establishments with 1 to 19 employees	number.. 986
Establishments with 20 to 99 employees	number.. 378
Establishments with 100 employees or more	number.. 101
All employees ³	number.. 42 526
Total compensation	\$1,000.. 2 306 610
Annual payroll	\$1,000.. 1 902 190
Total fringe benefits	\$1,000.. 404 420
Production workers, average for year	number.. 23 096
Production workers on March 12	number.. 23 302
Production workers on May 12	number.. 23 385
Production workers on August 12	number.. 23 091
Production workers on November 12	number.. 22 531
Production worker hours	\$1,000.. 44 164
Production worker wages	\$1,000.. 821 603
Total cost of materials	\$1,000.. 3 464 008
Materials, parts, containers, packaging, etc., used	\$1,000.. 2 729 502
Resales	\$1,000.. 422 182
Purchased fuels	\$1,000.. 13 682
Purchased electricity	\$1,000.. 44 288
Contract work	\$1,000.. 254 354
Quantity of electricity purchased for heat and power	1,000 kWh.. 633 249
Quantity of electricity generated less sold for heat and power	1,000 kWh.. D
Total value of shipments	\$1,000.. 7 613 805
Primary products value of shipments	\$1,000.. 6 344 498
Secondary products value of shipments	\$1,000.. 435 052
Total miscellaneous receipts	\$1,000.. 834 255
Value of resales	\$1,000.. 587 890
Contract receipts	\$1,000.. 28 668
Other miscellaneous receipts	\$1,000.. 217 697
Primary products specialization ratio	percent.. 94
Value of primary products shipments made in all industries	\$1,000.. 6 667 630
Value of primary products shipments made in this industry	\$1,000.. 6 344 498
Value of primary products shipments made in other industries	\$1,000.. 323 132
Coverage ratio	percent.. 95
Value added	\$1,000.. 4 039 452
Total inventories, beginning of year	\$1,000.. 1 417 883
Finished goods inventories	\$1,000.. 504 799
Work-in-process inventories	\$1,000.. 409 922
Materials and supplies inventories	\$1,000.. 503 346
Total inventories, end of year	\$1,000.. 1 262 204
Finished goods inventories	\$1,000.. 463 213
Work-in-process inventories	\$1,000.. 341 163
Materials and supplies inventories	\$1,000.. 458 012
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 2 388 939
Total capital expenditures (new and used)	\$1,000.. 271 621
Buildings and other structures (new and used)	\$1,000.. 56 912
Machinery and equipment (new and used)	\$1,000.. 214 709
Automobiles, trucks, etc., for highway use	\$1,000.. 10 241
Computers and peripheral data processing equipment	\$1,000.. 36 821
All other expenditures for machinery and equipment	\$1,000.. 167 647
Total retirements	\$1,000.. 173 347
Gross value of depreciable assets at end of year	\$1,000.. 2 487 213
Depreciation charges during year	\$1,000.. 172 480
Total rental payments	\$1,000.. 112 964
Buildings and other structures	\$1,000.. 78 492
Machinery and equipment	\$1,000.. 34 472
Total other expenses ⁴	\$1,000.. 424 643
Response coverage ratio ⁵	percent.. 68
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 29 103
Communications services ⁴	\$1,000.. 18 903
Legal services ⁴	\$1,000.. 12 304
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 9 346
Advertising and promotional services ⁴	\$1,000.. 22 168
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 11 973
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 4 504
Management consulting and administrative services ⁴	\$1,000.. 15 253
Taxes and license fees ⁴	\$1,000.. 16 026
All other expenses ⁴	\$1,000.. 285 062

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
333298, All other industrial machinery manufacturing											
All establishments	2	1 465	42 526	1 902 190	23 096	44 164	821 603	4 039 452	3 464 008	7 613 805	271 621
Establishments with—											
1 to 4 employees	9	526	1 162	47 002	673	1 146	20 934	97 011	69 995	166 656	6 985
5 to 9 employees	5	211	1 419	63 226	815	1 520	28 613	140 664	110 503	249 973	9 547
10 to 19 employees	3	249	3 506	148 786	2 062	3 843	67 676	319 998	219 005	540 660	20 090
20 to 49 employees	2	269	8 476	356 340	4 788	9 286	158 359	723 684	564 862	1 302 528	36 402
50 to 99 employees	3	109	7 610	334 415	4 223	8 163	149 366	671 220	524 630	1 209 217	32 222
100 to 249 employees	2	82	12 122	548 385	6 684	13 007	248 550	1 147 791	1 152 548	2 346 849	116 962
250 to 499 employees	2	15	5 353	259 607	2 608	5 255	100 967	605 830	528 002	1 156 186	37 107
500 to 999 employees	4	4	2 878	144 429	1 243	1 944	47 138	333 254	294 463	641 736	12 306
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	548	2 103	86 667	1 214	2 222	37 806	191 940	139 077	324 585	14 245

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
333298	All other industrial machinery manufacturing	1 465	42 526	1 902 190	23 096	44 164	821 603	4 039 452	3 464 008	7 613 805	271 621
3332981	Chemical manufacturing machinery, equipment, and parts	124	7 281	343 033	3 832	7 276	139 220	722 046	626 627	1 346 211	54 297
3332983	Foundry machinery and equipment, excluding patterns and molds	54	2 684	113 258	1 448	2 998	52 674	204 214	210 419	415 023	20 790
3332985	Printed circuit board manufacturing machinery, except testing	60	5 388	238 402	2 948	5 382	92 971	532 173	454 723	1 005 938	24 559
3332987	All other miscellaneous special industry machinery and equipment.	425	21 814	980 485	11 746	22 616	435 781	2 101 796	1 818 529	4 019 199	137 758

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
333298	All other industrial machinery manufacturing	2002.. N	X	X	6 667 630
	1997.. N		X	X	7 908 464
3332981	Chemical manufacturing machinery, equipment, and parts	2002.. N	X	X	1 249 081
	1997.. N		X	X	1 311 474
33329811	Chemical manufacturing mixing, kneading, crushing, grinding, sifting, homogenizing (except dairy), emulsifying, or stirring machines	2002.. N	X	X	220 610
	1997.. N		X	X	290 507
3332981121	Chemical manufacturing mixing, kneading, crushing, grinding, sifting, homogenizing (except dairy), emulsifying, or stirring machines	2002.. 46	X	X	220 610
	1997.. 47		X	X	290 507
33329812	Other chemical manufacturing machines and equipment	2002.. N	X	X	791 712
	1997.. N		X	X	862 331
3332981201	Chemical manufacturing distilling, rectifying, and fractionating machinery and equipment	2002.. 18	X	X	72 629
	1997.. 12		X	X	78 382
3332981206	Chemical manufacturing heat exchange units	2002.. 17	X	X	103 677
	1997.. 14		X	X	104 092
3332981211	Chemical manufacturing dryers	2002.. 13	X	X	63 004
	1997.. 24		X	X	82 280
3332981216	Chemical manufacturing gas or air liquefying machinery	2002.. 7	X	X	74 379
	1997.. 5		X	X	95 507
3332981226	Other chemical manufacturing machines and equipment	2002.. 51	X	X	478 023
	1997.. 49		X	X	502 070
33329813	Parts for chemical manufacturing machinery and equipment	2002.. N	X	X	226 645
	1997.. N		X	X	137 119
3332981331	Parts for chemical manufacturing distilling, rectifying, fractionating, heat exchange, dryers, gas and air liquefying machinery and equipment	2002.. 7	X	X	29 131
	1997.. 15		X	X	34 777
3332981336	Parts for other chemical manufacturing machinery and equipment	2002.. 34	X	X	197 514
	1997.. 37		X	X	102 342
3332981Y	Chemical manufacturing machinery, equipment, and parts, nsk	2002.. N	X	X	10 114
	1997.. N		X	X	21 517
3332981YVV	Chemical manufacturing machinery, equipment, and parts, nsk	2002.. N	X	X	10 114
	1997.. N		X	X	21 517
3332983	Foundry machinery and equipment, excluding patterns and molds	2002.. N	X	X	403 390
	1997.. N		X	X	367 622
33329831	Foundry machinery and equipment, excluding patterns and molds	2002.. N	X	X	263 041
	1997.. N		X	X	275 454
3332983101	Foundry pouring equipment, including ladles, crucibles, and pouring machines	2002.. 14	X	X	24 111
	1997.. 16		X	X	23 754
3332983106	Foundry molding and core-making machines	2002.. 14	X	X	19 644
	1997.. 10		X	X	27 293
3332983111	Foundry casting machines, except die casting machines, patterns, and molds	2002.. 7	X	X	23 605
	1997.. 10		X	X	19 733
3332983116	Foundry blast cleaning machines (hydraulic, pneumatic, and airless)	2002.. 12	X	X	66 996
	1997.. 13		X	X	79 425
3332983121	Other foundry machinery and equipment (including converters), excluding patterns and molds	2002.. 23	X	X	128 685
	1997.. 30		X	X	125 249
33329832	Parts for foundry blast cleaning machines	2002.. N	X	X	137 876
	1997.. N		X	X	84 521
3332983226	Parts for foundry blast cleaning machines	2002.. 4	X	X	8 166
	1997.. 7		X	X	11 901
3332983231	Other parts for foundry machinery and equipment	2002.. 20	X	X	129 710
	1997.. 31		X	X	72 620
3332983Y	Foundry machinery and equipment, excluding patterns and molds, nsk	2002.. N	X	X	2 473
	1997.. N		X	X	7 647
3332983YVV	Foundry machinery and equipment, excluding patterns and molds, nsk	2002.. N	X	X	2 473
	1997.. N		X	X	7 647
3332985	Printed circuit board manufacturing machinery, except testing	2002.. N	X	X	977 625
	1997.. N		X	X	941 482
33329851	Through-hole printed circuit board manufacturing machinery, except testing	2002.. N	X	X	235 809
	1997.. N		X	X	250 236
3332985106	Through-hole printed circuit board manufacturing machinery, except testing	2002.. 17	X	X	235 809
	1997.. 34		X	X	250 236
33329852	Other printed circuit board manufacturing machinery and equipment (including parts, accessories, and attachments), except testing	2002.. N	X	X	612 810
	1997.. N		X	X	583 262
3332985201	Surface mount printed circuit board manufacturing machinery, except testing	2002.. 23	X	X	401 883
	1997.. 55		X	X	360 263
3332985211	Other printed circuit board manufacturing machinery and equipment, except testing	2002.. 30	X	X	210 927
	1997.. 41		X	X	222 999
33329853	Parts, attachments, and accessories for printed circuit board manufacturing machinery and equipment, except testing	2002.. N	X	X	104 092
	1997.. N		X	X	73 759
3332985316	Parts, attachments, and accessories for printed circuit board manufacturing machinery and equipment, except testing	2002.. 15	X	X	104 092
	1997.. 28		X	X	73 759
3332985Y	Printed circuit board manufacturing machinery, except testing, nsk	2002.. N	X	X	24 914

See footnotes at end of table.

Table 6a. **Products Statistics: 2002 and 1997—Con.**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
333298	All other industrial machinery manufacturing—Con.				
3332985	Printed circuit board manufacturing machinery, except testing—Con.				
3332985Y	Printed circuit board manufacturing machinery, except testing, nsk—Con.				
	1997..	N	X	X	34 225
3332985YVV	Printed circuit board manufacturing machinery, except testing, nsk	2002..	N	X	24 914
	1997..	N	X	X	34 225
3332987	All other miscellaneous special industry machinery and equipment	2002..	N	X	3 443 475
	1997..	N	X	X	4 379 791
33329871	Other special industry machines, including petroleum refining, ammunition, grinding or polishing machines for glass working, and other machines	2002..	N	X	1 019 339
	1997..	N	X	X	1 058 507
3332987101	Petroleum refining, distilling, and fractionating machinery and equipment	2002..	9	X	236 262
	1997..	13	X	X	207 505
3332987106	Petroleum refining heat exchange units	2002..	3	X	D
	1997..	1	X	X	D
3332987111	Other petroleum refining machinery	2002..	3	X	D
	1997..	2	X	X	D
3332987121	Ammunition and explosive loading machinery, except parts	2002..	1	X	D
	1997..	4	X	X	8 291
3332987131	Tobacco processing machinery, except parts	2002..	6	X	27 315
	1997..	10	X	X	37 710
3332987141	Sawing machines for working stone, ceramics, and similar materials (including glass)	2002..	9	X	32 033
	1997..	7	X	X	14 678
3332987146	Grinding or polishing machines for glass working	2002..	4	X	22 708
	1997..	4	X	X	D
3332987151	Grinding or polishing machines for working stone, ceramics, and similar materials (except glass)	2002..	8	X	26 385
	1997..	8	X	X	16 358
3332987156	Other special industry glass working machines	2002..	12	X	34 636
	1997..	6	X	X	42 840
3332987161	Other special industry machines for working stone, ceramics, and similar materials (except glass)	2002..	11	X	73 811
	1997..	6	X	X	11 899
3332987171	Clay products forming equipment (brick, tile, ceramic), except parts	2002..	7	X	9 331
	1997..	5	X	X	12 500
3332987183	Concrete block and other forming equipment, except parts	2002..	17	X	102 352
	1997..	N	X	X	N
3332987196	Cement making machinery, except parts	2002..	10	X	41 285
	1997..	5	X	X	48 931
33329871B6	Cotton ginning machinery, except parts ¹	2002..	8	X	74 847
	1997..	8	X	X	63 890
33329871C6	Fuel fired kilns for cement, wood, and chemical processing (including parts)	2002..	15	X	52 301
	1997..	7	X	X	61 460
33329871G9	Distilling and rectifying equipment and heat exchange units for desalinization	2002..	2	X	D
	1997..	N	X	X	N
33329871H9	Filtering and purifying machinery and apparatus for desalinization	2002..	14	X	126 850
	1997..	N	X	X	N
33329871K1	Footware manufacturing and repairing machinery, except shoe sole stitching machines (including parts)	2002..	3	X	8 156
	1997..	8	X	X	15 405
33329871K6	Industrial sewing machine heads (including shoe sole stitching machine heads)	2002..	5	X	27 946
	1997..	12	X	X	45 003
33329871M1	Automatic industrial sewing machinery	2002..	5	X	9 578
	1997..	13	X	X	58 995
33329871M6	Non-automatic industrial sewing machinery	2002..	2	X	D
	1997..	7	X	X	15 004
33329871N1	Industrial sewing machine furniture (including parts and attachments)	2002..	12	X	30 820
	1997..	17	X	X	53 452
33329871N6	Machines for insulating electrical wire for cable (including parts)	2002..	4	X	10 982
	1997..	2	X	X	D
33329871P1	Electric battery manufacturing machinery, except parts	2002..	8	X	17 274
	1997..	10	X	X	43 541
33329871R3	Household sewing machines and parts (including heads for sale with cabinets or cases, and heads for sale separately)	2002..	3	X	1 768
	1997..	N	X	X	N
33329872	Parts for special industry machinery and equipment	2002..	N	X	255 193
	1997..	N	X	X	374 548
3332987216	Parts for petroleum refining machinery	2002..	3	X	1 434
	1997..	5	X	X	D
3332987226	Parts for ammunition and explosive loading machinery	2002..	2	X	D
	1997..	N	X	X	N
3332987236	Parts for tobacco processing machinery	2002..	2	X	D
	1997..	6	X	X	13 326
3332987266	Parts for machines for working stone, ceramics, and similar materials (including glass)	2002..	6	X	7 675
	1997..	10	X	X	11 809
3332987276	Parts for clay products forming equipment (brick, tile, ceramic)	2002..	2	X	D
	1997..	4	X	X	17 794
3332987291	Parts for concrete products forming equipment	2002..	13	X	120 939
	1997..	7	X	X	58 186
33329872A1	Parts for cement making machinery	2002..	1	X	D
	1997..	5	X	X	9 176
33329872B1	Parts for glassmaking machinery and equipment	2002..	9	X	26 648

See footnotes at end of table.

Table 6a. **Products Statistics: 2002 and 1997—Con.**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
333298	All other industrial machinery manufacturing—Con.				
3332987	All other miscellaneous special industry machinery and equipment—Con.				
33329872	Parts for special industry machinery and equipment—Con.				
33329872B1	Parts for glassmaking machinery and equipment—Con.				
	1997..	19	X	X	137 688
33329872C1	Parts for cotton ginning machinery ¹	2002..	5	X	21 982
	1997..	8	X	X	18 992
33329872D6	Parts for electroplating equipment	2002..	9	X	3 857
	1997..	8	X	X	8 368
33329872F6	Parts for metal finishing equipment	2002..	10	X	24 294
	1997..	12	X	X	7 551
33329872J6	Parts of desalinization equipment	2002..	3	X	16 628
	1997..	2	X	X	D
33329872P6	Parts for electric battery making machines	2002..	7	X	7 870
	1997..	8	X	X	8 033
33329873	Vibratory metal finishing machines, except parts	2002..	N	X	189 306
	1997..	N	X	X	294 706
33329873D1	Electroplating equipment, except rolling mill lines (except parts)	2002..	10	X	22 073
	1997..	13	X	X	56 997
33329873E6	Metal plating equipment, except electroplating (except parts)	2002..	9	X	16 562
	1997..	9	X	X	10 877
33329873E1	Vibratory finishing machines, except parts	2002..	4	X	2 389
	1997..	6	X	X	5 155
33329873F1	Other metal finishing equipment, except electroplating and rolling mill equipment (except parts)	2002..	24	X	81 744
	1997..	20	X	X	117 620
33329873G1	Metal degreasing machines, including parts	2002..	11	X	66 538
	1997..	17	X	X	104 057
33329874	Glassmaking machinery and equipment, including machines for hot working glass or glassware (except parts)	2002..	N	X	156 662
	1997..	N	X	X	205 818
33329874A6	Glassmaking machinery and equipment, including machines for hot working glass or glassware (except parts)	2002..	10	X	156 662
	1997..	15	X	X	205 818
33329875	All other miscellaneous special industry machinery, including parts	2002..	N	X	1 650 044
	1997..	N	X	X	2 071 237
33329875R1	All other miscellaneous special industry machinery, including parts	2002..	290	X	1 650 044
	1997..	315	X	X	2 071 237
3332987Y	All other miscellaneous special industry machinery and equipment, nsk	2002..	N	X	172 931
	1997..	N	X	X	374 975
3332987YVV	All other miscellaneous special industry machinery and equipment, nsk	2002..	N	X	172 931
	1997..	N	X	X	374 975
333298W	All other industrial machinery manufacturing, nsk, total	2002..	N	X	594 059
	1997..	N	X	X	908 095
333298WY	All other industrial machinery manufacturing, nsk, total	2002..	N	X	594 059
	1997..	N	X	X	908 095
333298WYWW	All other industrial machinery manufacturing, nsk, for nonadministrative-record establishments	2002..	N	X	362 761
	1997..	N	X	X	682 777
333298WYWY	All other industrial machinery manufacturing, nsk, for administrative-record establishments	2002..	N	X	231 298
	1997..	N	X	X	225 318

¹For additional detail, see Current Industrial Report MA333A, Farm Machinery and Garden Equipment.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3332981	Chemical manufacturing machinery, equipment, and parts	
	United States	2002 .. 1 249 081
		1997 .. 1 311 474
	California	2002 .. 35 553
		1997 .. 27 953
	Florida	2002 .. 24 358
		1997 .. 20 285
	Georgia	2002 .. 48 970
		1997 .. 13 095
	Illinois	2002 .. 140 562
		1997 .. 132 655
	Indiana	2002 .. 18 203
		1997 .. N
	Massachusetts	2002 .. 17 002
		1997 .. 69 447
	Michigan	2002 .. 47 175
		1997 .. 184 086
	Minnesota	2002 .. 30 162
		1997 .. 13 854
	New Jersey	2002 .. 46 037
		1997 .. 22 712
	New York	2002 .. 175 695
		1997 .. 150 629
	North Carolina	2002 .. 81 421
		1997 .. N
	Ohio	2002 .. 50 623
		1997 .. 113 068
	Pennsylvania	2002 .. 65 629
		1997 .. 120 123
	Texas	2002 .. 227 406
		1997 .. 45 538
	Utah	2002 .. 4 729
		1997 .. N
	Virginia	2002 .. 60 750
		1997 .. N
	Wisconsin	2002 .. 10 310
		1997 .. N
3332983	Foundry machinery and equipment, excluding patterns and molds	
	United States	2002 .. 403 390
		1997 .. 367 622
	Illinois	2002 .. 23 441
		1997 .. 55 426
	Michigan	2002 .. 75 193
		1997 .. 56 219
	New York	2002 .. 54 254
		1997 .. 11 144
	Ohio	2002 .. 50 473
		1997 .. 34 677
	Wisconsin	2002 .. 7 154
		1997 .. 19 232
3332985	Printed circuit board manufacturing machinery, except testing	
	United States	2002 .. 977 625
		1997 .. 941 482
	California	2002 .. 92 191
		1997 .. 293 557
	Colorado	2002 .. 15 583
		1997 .. N
	Massachusetts	2002 .. 148 209
		1997 .. N
	New Jersey	2002 .. 8 503
		1997 .. 31 481
	Pennsylvania	2002 .. 14 227
		1997 .. N
3332987	All other miscellaneous special industry machinery and equipment	
	United States	2002 .. 3 443 475
		1997 .. 4 379 791
	Alabama	2002 .. 33 046
		1997 .. N
	Arizona	2002 .. 7 462
		1997 .. 18 643
	Arkansas	2002 .. 10 005
		1997 .. N
	California	2002 .. 417 088
		1997 .. 441 058
	Colorado	2002 .. 40 082
		1997 .. 20 909
	Connecticut	2002 .. 137 686
		1997 .. 292 015
	Florida	2002 .. 18 706
		1997 .. 76 926
	Georgia	2002 .. 49 024
		1997 .. 111 939
	Illinois	2002 .. 324 474
		1997 .. 396 538
	Indiana	2002 .. 101 647
		1997 .. 149 802
	Iowa	2002 .. 59 365
		1997 .. 57 431
	Kentucky	2002 .. 11 799
		1997 .. 21 393
	Louisiana	2002 .. 11 712
		1997 .. 27 617
	Massachusetts	2002 .. 87 007
		1997 .. 124 944
	Michigan	2002 .. 548 048
		1997 .. 538 545
	Minnesota	2002 .. 84 180

See footnotes at end of table.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997—Con.**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3332987	All other miscellaneous special industry machinery and equipment—Con.	
	United States—Con.	
	1997..	77 597
	Missouri	2002.. 33 282
	1997..	39 948
	New Jersey	2002.. 129 030
	1997..	135 174
	New York	2002.. 124 257
	1997..	179 841
	North Carolina	2002.. 64 502
	1997..	103 684
	Ohio	2002.. 320 740
	1997..	307 963
	Oklahoma	2002.. 134 043
	1997..	162 607
	Oregon	2002.. 31 109
	1997..	24 448
	Pennsylvania	2002.. 102 577
	1997..	150 352
	Rhode Island	2002.. 16 318
	1997..	11 410
	South Carolina	2002.. 13 344
	1997..	54 891
	Tennessee	2002.. 55 886
	1997..	56 650
	Texas	2002.. 46 180
	1997..	202 469
	Utah	2002.. 11 558
	1997..	N
	Virginia	2002.. 33 751
	1997..	88 658
	Wisconsin	2002.. 101 222
	1997..	138 167

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
333298	All other industrial machinery manufacturing		
00900001	Total materials .....2002..	X	2 729 502
	.....1997..	X	3 264 095
001900B1	Electrical transmission, distribution, and control equipment.....2002..	X	88 544
	.....1997..	X	117 088
33399601	Fluid power pumps, motors, and hydrostatic transmissions (hydraulic and pneumatic) .....2002..	X	37 679
	.....1997..	X	40 715
33391101	Other pumps and pump parts, excluding fluid power (complete assemblies) .....2002..	X	17 332
	.....1997..	X	26 602
33291207	Fluid power valves (hydraulic and pneumatic) .....2002..	X	32 147
	.....1997..	X	21 620
33399501	Fluid power cylinders and rotary actuators (hydraulic and pneumatic) .....2002..	X	10 402
	.....1997..	X	23 360
33291203	Fluid power hose and tube fittings and assemblies (hydraulic and pneumatic) .....2002..	X	5 915
	.....1997..	X	13 060
33399901	Fluid power filters (hydraulic and pneumatic) .....2002..	X	5 400
	.....1997..	X	7 483
00190089	Other fluid power products, hydraulic and pneumatic .....2002..	X	4 025
	.....1997..	X	6 413
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	22 467
	.....1997..	X	45 372
332000A1	Metal tanks, heat exchangers, steam condensers, and other boiler products (fabricated steel plate, and weldments) .....2002..	X	49 674
	.....1997..	X	51 100
33291901	Metal pipe, valves, and pipe fittings (excluding forgings) .....2002..	X	31 185
	.....1997..	X	44 979
33200051	Other fabricated metal products (excluding fluid power products and forgings) .....2002..	X	156 662
	.....1997..	X	173 863
33210000	Forgings .....2002..	X	4 940
	.....1997..	X	N
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	46 463
	.....1997..	X	61 994
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished) .....2002..	X	18 175
	.....1997..	X	18 708
33152003	Other nonferrous metalcastings, rough and semifinished (excluding aluminum and aluminum-base alloy) .....2002..	X	13 299
	.....1997..	X	4 685
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products) .....2002..	X	92 976
	.....1997..	X	122 068
33120016	Steel sheet and strip (including tinplate) .....2002..	X	98 319
	.....1997..	X	N
33120019	Steel structural shapes and sheet piling (excluding castings, forgings, and fabricated metal products) .....2002..	X	22 513
	.....1997..	X	28 619
33120091	All other steel shapes and forms (excluding castings, forgings, fabricated metal products, bars, bar shapes, plate, sheet, strip, structural shapes, and sheet piling) .....2002..	X	44 730
	.....1997..	X	53 827
33131500	Aluminum and aluminum-base alloy sheet, plate, foil, and welded tubing .....2002..	X	13 185
	.....1997..	X	N
33100055	All other aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	8 459
	.....1997..	X	12 047
33100077	Other nonferrous shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	16 229
	.....1997..	X	18 718
33531225	Fractional horsepower electric motors and generators (less than 1 hp) .....2002..	X	12 533
	.....1997..	X	N
33531221	Integral horsepower electric motors and generators (1 hp or more) .....2002..	X	26 099
	.....1997..	X	34 936
33299101	Ball and roller bearings (mounted or unmounted) .....2002..	X	9 685
	.....1997..	X	28 728
33361200	Mechanical speed changers, gears, and industrial high-speed drives .....2002..	X	17 677
	.....1997..	X	31 409
33141911	Gold and other precious metals, all forms (including ingot, sheet, strip, solder, plating, electrodes, etc.) .....2002..	X	628
	.....1997..	X	N
33441200	Printed circuit boards (without inserted components) for electronic circuitry .....2002..	X	D
	.....1997..	X	N
001900C4	Printed circuit assemblies, loaded boards, and modules (printed circuit boards with inserted electronic components) .....2002..	X	52 773
	.....1997..	X	N
32212031	Filter paper .....2002..	X	D
	.....1997..	X	10 676
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	894 081
	.....1997..	X	1 344 405
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	859 968
	.....1997..	X	921 620

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.